

LISTING OF THE CLAIMS

1. -65. (Canceled)

66. (Currently Amended) A system for collecting fluorescent light emitted from a biological sample, the system comprising:

a plurality of sample holders;

a light detection device; and

an aspherical optical element, the aspherical optical element comprising:

a flat surface facing the plurality of sample holders;

a curved surface facing away from the plurality of sample holders; and

a radius of curvature,

wherein the sample holders are positioned at an object plane of the aspherical optical element, wherein the object plane is within the radius of curvature, and wherein the light detection device is a spectrograph for the fluorescent light from each of the sample holders.

67. (Previously Presented) The system of claim 66, further comprising a collection lens positioned to receive and substantially collimate light from the curved surface of the aspherical optical element.

68. (Previously Presented) The system of claim 67, further comprising a transmission grating configured to spectrally disperse the substantially collimated light from the collection lens.

69. (Currently Amended) The system of claim 68, further comprising a reimaging lens configured to receive the spectrally disperse light from the transmission grating and direct the spectrally dispersed light onto a the light detection device.

70. (Previously Presented) The system of claim 69, wherein the light detection device is a CCD.

71. (Previously Presented) The system of claim 69, further comprising an aperture positioned between the collection lens and reimaging lens.

72. (Previously Presented) The system of claim 71, wherein the aperture is configured to provide uniform light throughput.

73. (Previously Presented) The system of claim 72, wherein the aperture is in the shape of a cat's eye.

74. - 81. (Cancelled)